

★HITA P85 99-139212/12 ★JP 11008615-A  
 E-mail encryption system - decodes encrypted effective key added to encrypted E-mail,  
 using specific group key at receiving side, using which E-mail is decoded

IIITACII LTD 97.06.16 97JP-158421

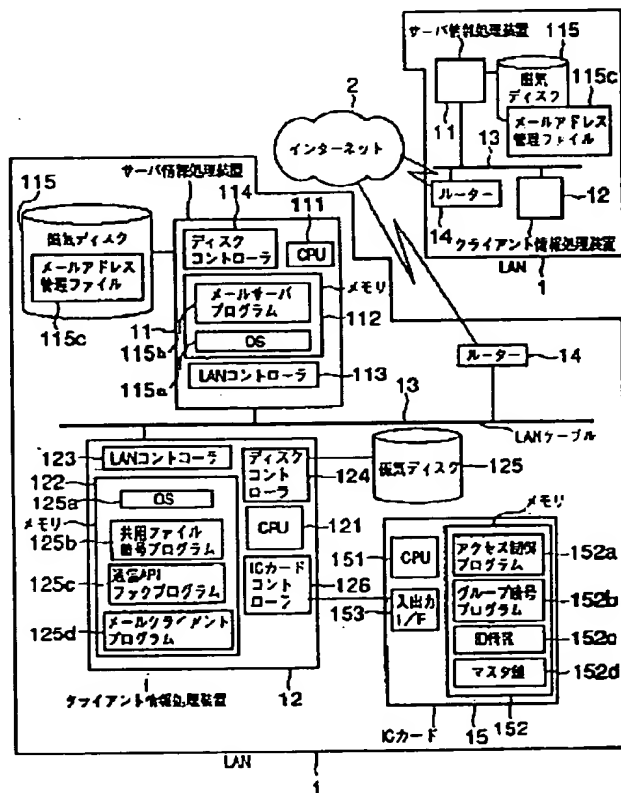
T01 W01 (99.01.12) II04L 9/08, G09C 1/00

NOVELTY - A group key and the address list of the E-mail to be transmitted are acquired from an IC card (15) for being transmitted along with the E-mail. A client information processor (12) encrypts the E-mail using an effective key acquired from the IC card. The effective key is then encrypted by the group key and added to the encrypted mail along with the address list. On receiving the encrypted mail in the reception side terminal, it is judged whether the added information is included or not. If the added information is included, the encrypted effective key is decoded by another group key and using the effective key, the encrypted E-mail decoded.

USE - In internet.

ADVANTAGE - Reduces burden on user. DESCRIPTION OF DRAWING(S) - The figure shows the schematic block diagram of the E-mail encryption system. (12) Client information processor; (15) IC card. (20pp Dwg.No.1/17)  
 N99-102210

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W01

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Electronic mail encryption system for managing security of transmission and reception of electronic mail in Internet - produces digital signature using secret key of transmitting agency and adds digital signature to transmitting information of electronic mail

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The system has a data base (100) in which the open key of each user is registered. The secret and the open keys of the user are stored in the memory of a pair of IC cards (103A,103B). A digital signature production part produces the digital signature using the secret key of a transmitting agency. A transmitter adds the digital signature with the transmitting data of the electronic mail and transmits the electronic mail to a receiving side. The transmitting data contains the user information and the transmitting time.

The digital signature production part verifies the transmission place and transmitting origin of the electronic mail using the open key of the transmitting agency. The transmitting agency and the specific user information are verified using the secret key of the transmitting agency. The receiving side verifies the address, the production time and the digital signature contained in the electronic mail received from the transmitting origin of the electronic mail.

ADVANTAGE - Improves security of transmission and reception of electronic mail.

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W01-A05A W01-A06E1 W01-A06G2 W01-A06X